

REMARKS/ARGUMENTS

As a preliminary matter, Applicant notes that the Examiner indicated in the recent Office Action that claims 9-11 and 25 are still pending in the application, however, these claims were canceled by Amendment C, transmitted to the Office on March 4, 2005. The current listing of claims being submitted reflects the cancellation of these claims. Twenty-nine (29) claims remain in the application: claims 1-8,12-24, and 26-33.

Claim 1 has been amended, as described below, and claim 23 has been amended to correct a spelling error.

In the specification, Paragraph [0024] has been amended to correct an obvious omission of the character "l", which is shown in the drawings as filed. Paragraph [0024] has also been amended, in accordance with MPEP § 2163.06 and 35 U.S.C. § 132, to further describe features shown in the drawings as filed.

Claim Rejections

A. Rejections under 35 U.S.C. § 112

Claims 1-33 were rejected under 35 U.S.C. § 112, first paragraph, for allegedly failing to comply with the written description requirement. More specifically, because of the inclusion of "substantially flat" and "one of the coils offset from the axis" in Claim 1, the Examiner stated that the claims contain subject matter not described in the specification as filed. Applicant traverses and requests withdrawal of this rejection for the following reasons.

In amended claim 1, "substantially flat" has been deleted and "wherein the outwardly facing surface is parallel to the axis" has been added. With regard to the language of amended claim 1 concerning multiple coils, the description of the filament refers to the "coils" of FIG. 2.

See paragraph [0024]. Applicant points out that the quoted limitations from amended claim 1 are clearly shown in the drawings that were filed in the application. As originally filed, FIG.1 and FIG. 2 depict structure (i) “wherein the outwardly facing surface is parallel to the axis,” and (ii) “the filament forming two coils with one of the coils being offset from the axis.” Because the language quoted above from amended Claim 1 was included in the application as filed, there is no proper basis for the rejection. The rejections should, therefore, be reconsidered and withdrawn.

For clarification, paragraph [0024] of the specification has been amended, in accordance with MPEP § 2163.06 and 35 U.S.C. § 132, to include corresponding language further describing these noted features of the drawings.

B. Rejections under 35 U.S.C. § 103

The claims currently pending in the application were all rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 3,394,257 to Moldenhauer in combination with various other references. Claims 1-4, 6-8, 12-13, 22-24, 26-29, and 31-33 were rejected as being unpatentable over Moldenhauer in view of U.S. Patent No. 1,697,607 to Maxon. Claims 5 and 14-21 were rejected as being unpatentable over Moldenhauer in view of U.S. Patent No. 1,514,628 to Pritzker and further in view of U.S. Patent No. 5,438,233 to Boland et al. and U.S. Patent Application Publication No. 2002/0096492 to George et al. Claim 30 was rejected as being unpatentable over Moldenhauer in view of Pritzker, and further in view of U.S. Patent No. 6,034,360 to Karlsson. Applicant traverses and requests withdrawal of this rejection for the following reasons.

Amended claim 1 recites “a base; a curved reflector extending along an axis and attached to the base; at least two pins passing through the base, within the reflector, and along the axis of

the reflector; and a filament helically wound about the pins such that the pins are located between the filament and the axis of the reflector, the filament having a high emissivity outwardly facing surface and a low emissivity inwardly facing surface, wherein the outwardly facing surface is parallel to the axis, and opposing ends electrically connected to a respective one of the pins so that upon passage of electrical energy through the filament, the filament becomes electrically heated and emits infrared radiation, wherein the helically wound filament has a diameter that monotonically decreases along the axis and away from the base and a width of the filament is greater than a space between adjacent coils of the helically wound filament, and wherein the helically wound filament forms at least two coils and at least one of the coils is offset from the axis." [Emphasis added]

One embodiment corresponding to the language of amended claim 1 is shown in FIG. 2 of the drawings:

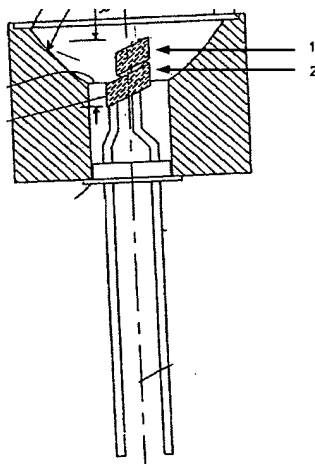
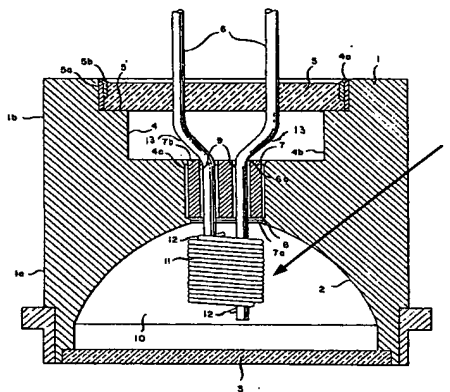


FIG. 2

In FIG. 2, arrows 1 and 2 point to two coils of different diameters, with one coil being aligned along an axis that is offset from the longitudinal axis of the structure and wherein the outwardly facing surface of the filament is parallel to the axis shown.

In contrast to amended claim 1 and the claims depending from it, Moldenhauer teaches a helical coil emitter that has a “structure that is substantially geometrically symmetrical”. See col. 2, line 45. This symmetrical quality is “obtained by having the curved ends 12 of the helix so welded onto the leads 6 as to make the axis of the helix coaxial with that of the cavity 10.” [Emphasis added] See col. 2, lines 55-58 and Moldenhauer FIG. 1 infra.



MOLDENHAUER - FIG. 1

As shown by arrow 1 in FIG. 1 of Moldenhauer, the helix 11 is centered within the reflector cavity 2 and aligned along the axis of the cavity 2. The configuration shown also contradicts the Examiner’s characterization of Moldenhauer as teaching a radiation source in which “the coil furthest from the base is offset from the axis.” For these reasons, Moldenhauer fails to disclose or suggest the language of amended claim 1, e.g., “forms at least two coils, wherein at least one of the coils is offset from the axis” and further “wherein the outwardly facing surface is parallel to the axis” and actually teaches away from amended claim 1.

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None of Maxon, Pritzker, Boland et al., George et al., or Karlsson, whether considered alone or in any combination, disclose or suggest the deficiency noted previously for Moldenhauer. Therefore, amended claim 1 is patentable over all of these references, including Moldenhauer, whether considered alone or in combination. Because claims 2-8, 12-24, and 26-33 depend from claim 1, they are patentable for at least the same reason.

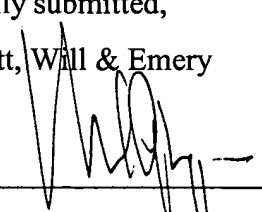
Applicant, therefore, requests reconsideration and withdrawal of the rejection of claims 1-8, 12-24, and 26-33 under 35 U.S.C. § 103(a).

Conclusion

In view of the amendments and remarks submitted herein, applicant believes that all claims in the present application are in condition for allowance, and respectfully requests a Notice of Allowance for the application. If a telephone conference will expedite prosecution of the application the Examiner is invited to telephone the undersigned.

Authorization is hereby given to charge our deposit account, No. 50-1133, sixty dollars (\$60.00) for a one month-extension under 37 C.F.R. § 1.136.

Respectfully submitted,
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